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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,886

09/05/2003

Yoshiharu Nakaji

50340-155

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12/15/2006

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EXAMINER

CANTELMO, GREGG

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/654,886

Applicant(s)

NAKAJI ET AL.

Examiner

Gregg Cantelmo

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 36-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-43, 45-49 and 53-68 is/are rejected.
- 7) ☒ Claim(s) 44 and 50-52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/16/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the amendment received September 6, 2006:
  - a. Claims 1-35 have been cancelled. Claims 36-68 are pending;
  - b. The previous 112 rejection has been withdrawn in light of the cancellation of claims 31 and 32;
  - c. The previous rejection to claim 36 stands.

### ***Information Disclosure Statement***

2. The information disclosure statement filed August 16, 2006 has been placed in the application file and the information referred to therein has been considered as to the merits.

### ***Claim Objections***

3. Claims 45 and 46 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims recited "tending to select" a balance mode and while it limits that particular balance mode the claimed tendency to select does not ultimately require the claimed selection to be made. Thus when the intended selection is not made, as the claim language is held to include, then claims 45 and 46 fail to further limit claim 44 since there are no limitations defining other modes other than the optional selection recited in claims 45

and 46. Applicant is advised to replace the phrase "tending to select" to --selecting-- to overcome both this claim objection and the following 112 rejection.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 45 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims define a process condition which "tends to select" the claimed mode. Tending to select a process condition does not absolutely require such conditions to be met and thus renders the claims indefinite since it is unclear what other mode(s) would be selected if the claimed tendency were not selected.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 2001-307758 (JP '758).

JP '758 discloses a fuel cell system and method of operating comprising a drive device which drives the moving body by receiving power, a power plant having a fuel cell 10 supplying power to the drive device and a fuel supply device which supplies fuel

to the fuel cell 10 to generate power and a controller 50 which is configured to both the fuel cell 20 and battery 30 which switches between the battery and fuel cell depending on the operating mode of the system (Fig. 1 as applied to claim 36).

### ***Response to Arguments***

6. Applicant's arguments filed September 6, 2006 have been fully considered but they are not persuasive.

Applicants submit that the '758 application fails to disclose or remotely suggest a plurality of operating modes as presently claimed. The Examiner's rejection on pages 3-5 of the Office action fails to particularly point out where the '758 application discloses or suggest this limitation recited in method claim 36. It is legally erroneous to ignore any claim limitation. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

The claimed invention recites: " when the moving body has stopped, selecting one operating mode from plural operating modes according to a running state of the power plant, the fuel cell not generating power to be supplied to the drive device in the plural operating modes, and controlling the power plant based on the selected operating mode."

The claim thus does not require that a plurality of operating modes must be present but only presents a genus of operating modes to which the fuel cell is responsive. Thus, and as in the case of JP '758, any single operating mode selectively used to control the power plant is sufficient to read on the claimed process step. The method JP '758 discloses that power system is controlled in response to the stepping

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operation on an accelerator in a vehicle. Thus when the vehicle is stopped, the load demand is clearly low and the fuel cell is disengaged from supplying power to the vehicle. Instead the battery 30, a component of the power plant, is employed to provide power to the vehicle. In this process, the operating mode for the battery is inherently one of at least two operating modes, that being 1) positive operating of the battery to provide power under low load demands and 2) not operating the battery at all if the vehicle is turned off. The operational state of the system depending on whether it is at a low power load or high power load would further constitute plural operating modes to which the system of JP '758 is responsive.

When the load requirement is low, the power system is controlled such that the battery is used to power the vehicle and the fuel cell operation is terminate. Thus JP '758 still anticipates the method of claim 36. Alternatively if the vehicle is turned off, the alternative operating state of the battery is in the off position since no power is required for an inoperative vehicle.

Applicant further asserts that the only motivation for such a limitation is Applicants' own disclosure. Applicants' disclosure, however, is forbidden territory for the Examiner to obtain the requisite motivation for combining the applied prior art. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).

However, since claim 36 is held to be anticipated by JP '758, there is no requirement for establishing motivation since anticipation is the epitome of obviousness.

Applicant concludes that he above argued differences between the claimed method and the '758 application undermines the factual determination that the '758

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application discloses the method identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 U.S.P.Q. 86 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection under 35 U.S.C. § 102 for lack of novelty as evidenced by the '758 application is not factually viable and, hence, solicit withdrawal thereof.

Again it is maintained that the invention as claimed, is broader than the interpretation relied upon in Applicants arguments and that the claim does not positively require plural operating modes but only selection of one operating mode from an undefined plurality of operating modes. The method JP '758 discloses that power system is controlled in response to the stepping operation on an accelerator in a vehicle. The operational state of the system depending on whether it is at a low power load or high power load would further constitute plural operating modes to which the system of JP '758 is responsive.

Thus, contrary to Applicant's arguments, JP '758 is held to reasonably anticipate the method of claim 36 and the rejection stands.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758.

The teachings of JP '758 have been discussed above and are incorporated herein.

The difference not yet discussed is of the operating mode being a complete stop mode which completely stops power generation by the power plant.

The system of JP '758 is employed in a moving body, notably a vehicle. When a vehicle is required to reach a particular destination, the vehicle is powered by the power



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system therein. After reaching the particular destination, it would be obvious thereafter to turn off the vehicle thereby completely stopping the power system in the vehicle.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 to include an operating mode which is complete stop mode which completely stops the power generation of the power plant since it would have turned off the power system when the vehicle is not in use and conserved fuel of the power plant.

8. Claims 37, 38 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa, of record.

The teachings of JP '758 have been discussed above and are incorporated herein.

The differences between claims 37, 38 and 40-41 and JP '758 are that JP '758 does not teach of a complete stop mode (claim 37), a temperature detector (claim 38), or of the functionality of the detector (claims 40 and 41) of stopping the fuel cell when the temperature of the power plant reaches or exceeds a predetermined temperature (claim 42), of using the power from the fuel cell when the temperature of the power plant is below a predetermined temperature (claim 43).

Miyazawa discloses providing a fuel cell temperature sensor and connecting the sensor to the controller and fuel cell for selective control of the operation of the fuel cell in response to the temperature of the fuel cell (Fig. 1 and paragraph [0033]). Power from the fuel cell is itself used to increase the temperature of the plant to a determined level after which the fuel cell power generation process is terminated (abstract as

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applied to claims 37, 38 and 40-42). When the temperature is below the threshold, the heat control process is employed using the power generated by the fuel cell to maintain the temperature of the fuel cell in an active state (abstract as applied to claim 43).

The motivation for using the temperature sensor of Miyazawa is that it provides temperature control of the fuel cell.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by providing a temperature sensor in combination with the fuel cell controller since it would have provided a way to control the temperature of the fuel cell.

9. Claims 53-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758 in view of either U.S. Patent No. 6,339,749 (Rieker) or 6,173,226 (Yoshida).

The teachings of JP '758 have been discussed above and are incorporated herein.

The differences between claims 53-59 JP '758 are that JP '758 does not teach of a displacement speed detector and load detector or of the process conditions applied to the system therein.

JP '758 is directed to hybrid-powered vehicles.

The concept of providing detectors to determine the weight of a vehicle from variables including displacement speed and load is known in the automotive industry as taught by Yoshida and Rieker (Fig. 1 of Yoshida and abstract and Fig. 1 of Rieker).

The motivation for detecting the speed displacement and load on the vehicle to determine the weight of the vehicle is to provide signals to the processor for optimizing

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the power output of the battery and fuel cell in the vehicle power plant based on the measured values.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by detecting the speed displacement and load on the vehicle to determine the weight of the vehicle since it would have provided signals to the processor for optimizing the power output of the battery and fuel cell in the vehicle power plant based on the measured values.

10. Claims 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758 in view of Rieker or Yoshida as applied to claim 59 above and in further view of U.S. Patent No. 6,577,334 (Kawai).

The difference between claims 60 and JP '758 is that JP '758 does not teach of a displacement speed detector, braking detector and blinker detector.

JP '758 is directed to hybrid-powered vehicles.

Kawai discloses of a vehicle condition sensor 30 that detects various vehicle conditions, including the drive conditions, includes vehicle speed sensor means or a vehicle speed sensor 31, decelerating operation sensor means comprising a break sensor 32, an accelerator sensor 33, a blinker sensor 34, and a throttle opening sensor 35. Vehicle speed sensor 31 detects a vehicle speed  $V$ . Break sensor 32 detects if the brake pedal is engaged (ON/OFF). Accelerator sensor 33 detects the accelerator's degree of opening  $\alpha$ . Trafficator sensor 34 detects ON/OFF of a trafficator switch. Throttle opening sensor 35 detects a degree of throttle opening  $\theta$ . (col. 11, ~ll. 50-60).

The motivation for detecting the speed displacement, braking and blinker of the vehicle to is to provide signals to the processor for optimizing the power output of the battery and fuel cell in the vehicle power plant based on the measured values.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by detecting the speed displacement, braking and blinker of the vehicle since it would have provided signals to the processor for optimizing the power output of the battery and fuel cell in the vehicle power plant based on the measured values.

11. Claims 61-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758 in view of in view of Rieker or Yoshida as applied to claim 53 above and further in view of U.S. Patent No. 6,847,127 (Lee).

The differences between claims 61-65 and JP '758 are that JP '758 does not teach of a load detector for estimating the power of the vehicle or of the process conditions applied to the system therein.

JP '758 is directed to hybrid-powered vehicles.

Lee discloses that it is preferable that the fuel cell mode is implemented when the required vehicle power is less than or equal to a predetermined power and a charge degree of the battery is greater than or equal to an upper limit value. The required vehicle power is preferably estimated based on the power presently used in the motor, a level of depression of an accelerator pedal, and a level of depression of a brake pedal (col. 5, ll. 25-40).

By providing the detector and estimating the power of the moving body, the controller can more effectively regulate the power plant by selecting operational conditions relative to the load applied to the accelerator.

The motivation for using the detector of Lee is that it improves the efficiency of the power plant.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by providing a load detector for estimating the power of the vehicle since it would have improved the efficiency of the power plant.

12. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758 in view of in view of Rieker or Yoshida as applied to claim 53 above and further in view of either JP 2000-329576 (JP '576) or U.S. Patent No. 5,983,154 (Morisawa).

The difference between claim 66 and JP '758 is that JP '758 does not teach of a navigation system and controller connected to the navigation system to estimate the running state of the moving body from the navigation system or of the process conditions applied to the system therein.

JP '758 is directed to hybrid-powered vehicles.

JP '576 discloses a navigation system whereby the running state of a vehicle or the like can be easily recognized through a display of a vehicle position mark and further the time of driving can be more pleasantly produced.

While the vehicle is running, on the other hand, the driver can change the running mode by operating the running mode setting switch 4 manually according to the

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running situations, and the running mode can be automatically changed to the optimum running mode on the basis of the running state of the vehicle and the road situations, as detected by the navigation system 11 (Morisawa, col. 7, ll. 25-30).

The motivation for providing a navigation system and connecting it to the controller of the power plant is that by providing the running state of the vehicle, the running mode and thus power requirements of the power plant can be automatically changed as needed depending on the road conditions and vehicle running state.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by providing a navigation system and connecting it to the controller of the power plant since by providing the running state of the vehicle, the running mode and thus power requirements of the power plant could have been automatically changed as needed depending on the road conditions and vehicle running state.

13. Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '758 in view of in view of Rieker or Yoshida as applied to claim 53 above and further in view of either U.S. Patent No. 6,480,928 (Yashiki) or U.S. Patent No. 6,876,892 (Matsuura).

The differences between claims 67 and 68 and JP '758 are that JP '758 does not teach of the controller comprising both rewritable and non-rewritable memory (claim 67) or of the process conditions applied to the system therein (claims 67 and 68).

JP '758 is directed to hybrid-powered vehicles.

Yashiki disclose a vehicle control system wherein the controller includes both rewritable and non-rewritable memory (abstract).

The rewritable ROM 16 is a non-volatile memory from which stored data can be deleted and to which new data can be written. The rewritable ROM 16 can be, for example, a flash memory or an EEPROM. The non-rewritable ROM 17 is a non-volatile memory. The non-rewritable ROM 17 can be implemented by specifying a part of the memory area of a rewritable ROM as an unchangeable area, or by using a mask ROM for which data is fixed during manufacturing and from or to which data can subsequently not be deleted or written. Alternatively, the ROM 17 can be implemented with a PROM to which data can be written only once (Matsuura, col. 4, ll. 45-55).

The motivation for providing both a rewritable and non-rewritable memory in the controller is to provide a memory which store operational programs in the non-rewritable memory and a memory for temporarily storing user date and date obtained from the operational detectors.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '758 by modifying the controller to have both rewritable and non-rewritable memory in the controller since it would have provided a memory which store operational programs in the non-rewritable memory and a memory for temporarily storing user date and date obtained from the operational detectors.

***Claim Rejections - 35 USC § 102***

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14. Claims 36-37, 39-40 and 47-49 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2001-338670 (JP '670).

JP '670 discloses a control method for a fuel cell power plant for a moving body including a drive device and a power plant having a fuel cell supplying power to the drive device and a fuel supply device to provide fuel to the fuel cell, the method comprising: when the moving body has stopped (vehicle speed of zero as recited in paragraph 82), the fuel cell does not generate power and the remaining power plant, and controlling the fuel cell, reformer and battery based on this condition (as applied to claim 36).

The modes include a stop mode (paragraph 82, zero speed indicative of being stopped as applied to claim 37).

When the moving body is accelerating, the method provides the needed power based on the load demand of the entire system, which includes the drive mechanism and electrical components of the system (paragraphs 36-40 as applied to claim 39).

The system and method includes a temperature detection step which detects the temperature of the refining reactor and controls the power system in response to the temperature (paragraphs 39 and 91 as applied to claim 40).

A state-of-charge (SOC of the battery is detected and charged by the fuel cell (paragraphs 87-90 as applied to claims 47-49).

***Allowable Subject Matter***



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15. Claims 44 and 50-52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 50 and 52: the following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record appear to teach, suggest or render obvious the combination of selection steps in either of claims 50 or 52.

As to claims 44 and 51: the following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record appears to teach, suggest or render obvious the counting and selection step of claims 40 and 51.

### ***Response to Arguments***

16. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on August 16, 2006 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

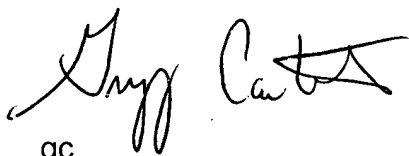
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is 571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



gc

December 11, 2006

Gregg Cantelmo  
Primary Examiner  
Art Unit 1745